

# Completed Return-On-Investment Project Case Study



United States Department of Energy  
Office of Environmental Management  
Fact Sheet

## Chemical Commodity Management Center (CCMC) Savannah River Site, South Carolina

### Original Problem

SRS provided minimal site-level control over procurement, use and disposal of chemicals. Each operating facility used their in-house procedures for chemical management. This practice resulted in generation of hazardous and mixed wastes from outdated chemicals and use of toxic material where more environmentally acceptable alternatives are available.



### The ROI Project Solution

SRS established an organization, facilities and infrastructure to provide site-wide control over the procurement, use, and disposal of chemicals. The Chemical Commodity Management Center (CCMC) significantly improved the management of material and reduced use of toxic chemicals.

#### DOE Monetary Benefits

<b>Cost</b>	<b>\$500,000</b>
<b>Lifecycle Savings</b>	<b>\$2,500,000</b>
<b>Return on Investment</b>	<b>400 %</b>

### Value Of Improvement

The CCMC controls the procurement, site inventory, and reuse and recycle of chemicals. This practice enhanced safety by reducing worker exposures to toxic chemicals and saved money by reducing material purchases and disposal of hazardous and mixed wastes. The CCMC has been recognized for its leadership and is involved in writing a Chemical Control Plan for the DOE complex.

### Benefits At-A-Glance

- Reduce safety risk to workers and the environment
- Reduce generation of hazardous and mixed wastes
- Avoids waste and procurement costs associated with inefficient chemical use and control (~\$190K in FY99 and \$850K in FY00 YTD).

#### Lifecycle Waste Reduction

<b>Life Cycle Waste Reduction</b>	<b>455,000 kgs.</b>
<b>Operation Commencement Date</b>	<b>12/95</b>
<b>Project Useful Life (Years)</b>	<b>10 years</b>

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### Summary Data

<b>ROI Priority Area:</b>	<b>Newly Generated Waste</b>
<b>ROI Project Type:</b>	<b>Source Reduction &amp; Reuse/recycle</b>
<b>Project Cost:</b>	<b>\$500,000</b>
<b>Lifecycle Savings:</b>	<b>\$2,500,000 (\$250,000/yr for 10 year)</b>
<b>Implementing Group:</b>	EM, SRS Asset Management Group
<b>Benefiting Group:</b>	EM, SRS Site
<b>Useful Life Years:</b>	<b>10 years used for calculations</b>
<b>Return On Investment:</b>	<b>400 %</b>
<b>Lifecycle Waste Reduction:</b>	<b>455,000 kgs</b>
<b>Project Contact:</b>	Jim Morgan
<b>Phone:</b>	(803) 557-4668
<b>Email:</b>	<a href="mailto:james.morgan@srs.gov">james.morgan@srs.gov</a>

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